

though, indeed, he need not expect much benefit from so small a reduction on so large a price. As it is, he has actually prevented his shop-keeping customers, by mere exorbitance of charge, from lighting their shops with gas, except on a Saturday night; and has kept the streets of a town parish population of 16,000 to 17,000, without even the expensive luxury of a gas light, "Saturday or Sunday."

—The Wiltshire Gas Company have reduced their price, at one stop, from 12s. to 8s. 4d.

—The Hull Corporation have resolved to allow the pipes of a new company to be laid through the streets of the town, the inhabitants having failed to induce the present lessee to lower his rate of charge from 6s. 8d. to 5s., as both lessee and shareholders have to reap their separate profits off it. They will probably now come to a mutual understanding. — Stockport and Belfast are to be lighted, it is said, with the hydrocarbon gas prepared from tar and water. It is to be hoped the authorities are awake to the fact that failures abroad have already occurred with gas prepared on a like principle, and to the necessity therefore of being well-assured that the causes of previous failures have been overcome. Gas is thus prepared, it is said, at 1s. per 1,000 cubic feet.

ROYAL INSTITUTE OF ARCHITECTS.

At a meeting held on the 5th inst., Mr. Poynter in the chair, a donation of great interest and value from Mr. Henry Garling, Fellow, was announced, namely, 20 folio volumes, including an early edition of Palladio (1570); Hamilton's Vases; Original Designs, by Lewis; Chambers' Civil Architecture, 3rd edition, with autograph of the author; W. Adam's designs (of Edinburgh); Gibb's works; and Rondelet's *Traité Théorique et Pratique de l'Art de Bâtir*. The chairman very properly commented on the excellence of the quality as well as the number of the works thus liberally presented by Mr. Garling.

The library of the institute is now becoming very extensive and excellent, and will, it is to be hoped, be made good use of by the students. Mr. John Edward Gregan, of Manchester, was elected a Fellow.

Mr. Scoles then read a paper "On the Topography and Antiquities of the City of Jerusalem," the principal portions of which we shall give in *extenso* hereafter. In the course of it, the writer alluded to Mr. Fergusson's published theory as to the Mosque of Omar and the Church of the Holy Sepulchre, and that gentleman being present, an interesting discussion ensued. Mr. David Roberts, R.A. (some of whose capital sketches were amongst the illustrations of the paper), joined in questioning Mr. Fergusson, who stood gallantly and good-naturedly a cross fire of objections.

Mr. Fergusson's views, as we gathered, may be briefly stated thus: namely, that the building known as the Mosque of Omar is, in truth, the Church of the Holy Sepulchre, and that what is called the Church of the Holy Sepulchre, and was burnt in 1808, was a building not earlier than the 12th century. His principal reasons for the first part of this belief are, that the so-called Mosque of Omar is unquestionably a circular Christian building of the time of Constantine, and is built over a rock standing up 15 feet from the floor, with a cave in it; further, that it could not have been a mosque, its shape and arrangements being contrary to the requirements of the religion. In reply to the question, at what period was the truth lost sight of and the title of Church of the Holy Sepulchre given to the edifice which now bears it, Mr. Fergusson said about 150 years before the Crusades.—Mr. Scoles did not believe that the (so called) mosque of Omar was of the age of Constantine; the main arches were slightly pointed. He had never seen a pointed arch as old as Constantine. He considered that the columns used were from a more ancient building, but the structure itself was of a comparatively recent period.—Mr. Fergusson contended that the arches being pointed in no way weakened his opinion; he had elsewhere shown that the pointed arch, from 800 years B.C., had been the arch of that country—that is, the horizontal arch bracketed inwards to a point.

The Dean of Westminster, with reference to

a specimen of the stone of which the walls of Jerusalem are built, remarked that the stone in some of the most ancient buildings was not from beds of ancient formation, but from those which were actually in course of formation at the time; and which were taken from the quarry while ductile, and indurated afterwards. The temples at Poestum, known as antiquities by the ancients themselves, were of limestone, the formation of which is still going on,—an imperishable material.

IMPROVEMENT OF OVENS.

I HAVE long been anxious to turn the attention of practical men to a most important improvement in the construction of bakers' ovens. In a word, in place of the close unwholesome oven now in use, I propose to substitute a ventilating one, securing at once the health of the journeymen, and saving a large quantity of a very valuable product, alcohol, to wit. The recent discovery by M. Violette, of the carbonization of wood, by means of heated steam, is greatly calculated to further this desirable innovation. By means of steam heated to 480 degrees Fahrenheit, it has been ascertained that the dough is converted into a light, fragrant, well-baked, and well-tasted loaf. There is no risk attendant on the process, as the steam, after coming in contact with the bread, is suffered to escape, loaded with all the impurities emitted by the bread, not into, but beyond the precincts of the bake-house. The steam is generated by a helix, or spiral iron tube, placed in a common furnace, which would further serve to heat the oven, and economise the steam. The other important economical applications of M. Violette's discovery, in roasting coffee, cooking, in the seasoning of timber, in the pharmaceutical and other arts, I do not here propose to enlarge on.

HENRY M'CORMAC, M.D.

SCULPTURE IN RELATION TO MODERN MEANS AND REQUIREMENTS.

At a *conversazione* held in the Royal Institution, Manchester, last week, Mr. George Wallis delivered an address on the subject, and urged that our artists should use English instead of Greek eyes. He thought the artist should go to nature, but if so, it was essential he should read nature for himself: that he should not do it without availing himself of the tests and aids which those who had preceded him were able to give him was true, but to bind himself down to the forms of expression produced before him was wrong. If he did so, he thought in a groove which he could not get out of, for he found himself pressed on by the standard set up for him, and he could not give vent to his genius for the realisation of the works he proposed to accomplish. He must look to the productions of antiquity as the standard by which he was to work in the spirit of his own time. Hence it was that the artist should seek objects from his own times, from his own religion, and for his own times, and endeavour to realise them: he said this of painting as of sculpture. We heard an outcry for originality in art, but they who joined in it forgot that when a new work was produced, it was criticised and judged of by an antique standard, for which we went back to the past.

Speaking of modern architecture he said,—Beauty had not been considered to any extent, and where originality had been studied it had run into absurdity rather than beauty. One great cause of this want of beauty was that we were trammelled by fiscal restrictions, and until we could mould bricks into forms and shapes, with which we could produce beauty in a building, we must be content to go on with square bricks made according to an exciseman's notion. In speaking of sculpture he was not alluding to mere marble statuary, but to all works in any material capable of carrying fixity of shape. Within the last century the mechanical arts had progressed to an extraordinary degree; new materials had been discovered, in which works of art could be produced, and of which the ancients had never dreamt. We had means of production which, fifty years ago, would not have been conceived, and, with them, means of adapting forms of beauty to objects of utility. By

getting our sculptors to pay more attention to the generalization of their art, and the diffusion of that beauty which they had been too apt to consider as merely applicable to one department of it, we should produce such an effect on the public taste, as would educate the people to appreciate its higher developments. But to suppose that no man was a sculptor unless he was a carver of marble, was to use the term in a confined sense.

In the course of a discussion which ensued, Mr. Wallis, remarking that we could not expect the public to give reward unless their minds were educated, said,—Our institutions were not fulfilling the purposes for which they were established; our schools of design were only drawing schools, and far from inculcating originality of conception or thought in the student, simply taught the mechanics of the art and nothing more.

THE NEW HALL, PEMBROKE COLLEGE, OXFORD.

VARIOUS additions have lately been completed in Pembroke College, Oxford. Our engraving is a view of the new hall, which forms the western side of the new quadrangle. This is a room 74 feet 6 inches by 27 feet, and 42 feet high from the floor to the ridge of the roof. The hall is divided into six bays, one of which, at the extreme end, where the door is placed, is a trifid—wider than the others. The main ribs of the roof spring from stone corbels, ornamented with roses, the badge of the college; the spaces between the ribs are filled with tracery, and the wall plate is carved with shields and roses alternately. The roof is surmounted with a lantern, constructed with a view to obtain ventilation. The hall is lighted by four four-light windows on each side, two lights in height, and also by a large bay window on the east, of eighteen lights. All these windows are to be filled with stained glass, which is to be executed by Messrs. Chance, of Smethwick, near Birmingham. The east window has a stone groined ceiling on the inside.

The hall is warmed by a fire-place on the west side, with a carved chimney-piece of Painswick stone, containing the arms of the college; and likewise by an apparatus in the basement, from which a constant stream of tempered air is passed into the body of the hall. The northern end is divided off by an oak screen, surmounted by a gallery, and the whole room is lined with wainscot panelling 9 feet in height. The entrance is by the tower at the north-east angle, forming an open porch, groined with stone, the external doorway of which is at a right angle, by which direct draughts of air are avoided.

In the centre of the ante-hall, behind the screen, is the buttery hatch, and further on the service-door for the kitchen, which, with the other offices, is placed in the basement, under the hall. The access to the tower archway is by a flight of steps, seen in the view. The range work of the hall is of Bladen stone, and the dressings of Bath stone, from Combe Down.

The northern side of the new quadrangle, of which a part is seen in the view, consists of entirely new buildings, containing a library, common-room, lecture-rooms, and lodgings for fellows, and sixteen sets of rooms for undergraduates. The latter are less ornamental in character than the former, and separated from them by a slightly recessed building. The whole forms a pile 160 feet long.

The doorway to the fellows' rooms stands between two large bay windows, two stories in height, containing carved tracery, panelling, and shields. This building is peripetled, but that containing the undergraduates' rooms has ornamental eaves gutters of gilded iron. The eastern side of the new court consists wholly of old buildings, which have been made to accord with the court of which they form a part.

The architect is Mr. John Haygard, of Exeter. Mr. M. Arling, of London, has erected the hall and restored the east side of the court. Praise is due to Dr. Joane, the master, and the fellows of the college, for their efforts to improve the college committed to their care.